



NEWZEN CONSULTANTS BANGALORE

NEW TECHNOLOGIES TO INNOVATE

Date: 09-06-2021

NC/QC/YPD/2020-21/P5-C1

1. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).

{Project*: Package1 a Improvements to playgrounds at Thanisandra Village at Ward No 06
b Improvements to Suvarana Mahotsava Play Ground on Vidyaranyapura Main road at
Ward No 09 c Improvements to playgrounds at Ward No 11 Kuvempunagarad
Developmental Works to Play ground stadium in Ward No 05 Jakkur e Developmental
works to Play ground Stadium Sahakaranagara Ward No 08 Kodigehalli.}

Ref.: Material testing/PMC/18-19,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. Arun Kumar B.

PHYSICAL TESTS ON CEMENT

Grade * : 53,
Type * : O.P.C

TABLE 1.1:

SL No	Name of Test	Test Results	Requirements as per IS 8112-1989
1	Initial setting time	151 min	Shall not be less than 30 min
2	Final setting time	265 min	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	1.81 %	Not to exceed 10.0%
4	Soundness test(by Le-Chatelier's method)	1.96 mm	Shall not be more than 10 mm
5	Compressive strength a) 3 days (average of three results)	28.12 N/Sq mm	Shall not be less than 27 N/Sqmm

The result of the materials tested meet the standards and hence can be used for the work.

Sri. Arun Kumar B.
Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Page No. 1/1,



Date: 09-06-2021

NC/QC/YPD/2020-21/P5-PCC1

1. TESTING OF COARSE AND FINE AGGREGATES:

Sub: Testing of Coarse and Fine aggregates to be used for bed concrete.
{Project*: Package I a Improvements to playgrounds at Thanisandra Village at Ward No 06
b Improvements to Suvarana Mahotsava Play Ground on Vidyaranyapura Main road at
Ward No 09 c Improvements to playgrounds at Ward No 11 Kuvempunagarad
Developmental Works to Play ground stadium in Ward No 05 Jakkur e Developmental
works to Play ground Stadium Sahakaranagara Ward No 08 Kodigehalli ;

Ref.: Material testing/PMC/18-19,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. Arun Kumar B.

1. COARSE AGGRGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2007)	
		Single size	Graded
	40 mm Sample	85-100	90 - 100
40mm	100.00	0 -20	30- 70
20mm	62.95	0 -5	10- 35
10mm	24.60	-----	0- 5
4.75mm	3.80		

2. FINE AGGREGATES TABLE - SIEVE ANALYSIS:

4.75mm

2. FINE AGGREGATES TABLE - SIEVE ANALYSIS.					
IS Sieve Size, mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002)			Remarks
		Percentage Passing			
		Zone-I	Zone-II	Zone -III	
04.75	97.35	90-100	90-100	90-100	The Sample Conforms to Grading Zone-II
02.36	84.10	60-95	75-100	85-100	
01.18	70.95	30-70	55-90	75-100	
600.mic	46.70	15-34	35-59	60-79	
300.mic	11.85	5-20	8-30	12-40	
150.mic	6.40	0-10	0-10	0-10	

the standards and hence can be used for the work.

The result of the materials tested meets the standards and hence can be used for the work.

Page No. 1/1,

[Signature]





NEWZEN CONSULTANTS BANGALORE

NEW TECHNOLOGIES TO INNOVATE

NC/QC/YPD/2020-21/P5-PCCI

Date: 09-06-2021

1. TESTING OF COARSE AND FINE AGGREGATES:

Sub: Testing of Coarse and Fine aggregates to be used for bed concrete.
 {Project*: Package1 a Improvements to playgrounds at Thanisandra Village at Ward No 06
 b Improvements to Suvarana Mahotsava Play Ground on Vidyaranyapura Main road at
 Ward No 09 c Improvements to playgrounds at Ward No 11 Kuvempunagarad
 Developmental Works to Play ground stadium in Ward No 05 Jakkur e Developmental
 works to Play ground Stadium Sahakaranagara Ward No 08 Kodigehalli.}

Ref.: Material testing/PMC/18-19,
 Report Required for: Assistant Executive Engineer,
 Yelahanka Project Division,
 BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. Arun Kumar B.

1. COARSE AGGRGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2007)	
		Single size	Graded
	40 mm Sample	85-100	90 - 100
40mm	100.00	0 -20	30- 70
20mm	62.95	0 -5	10- 35
10mm	24.60	-----	0- 5
4.75mm	3.80		

2. FINE AGGREGATES TABLE - SIEVE ANALYSIS

2. FINE AGGREGATES TABLE - SIEVE ANALYSIS					Remarks
IS Sieve Size, mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002)			
		Percentage Passing			
		Zone-I	Zone-II	Zone -III	The Sample Conforms to Grading Zone-II
04.75	97.35	90-100	90-100	90-100	
02.36	84.10	60-95	75-100	85-100	
01.18	70.95	30-70	55-90	75-100	
600 mic	46.70	15-34	35-59	60-79	
300 mic	11.85	5-20	8-30	12-40	
150 mic	6.40	0-10	0-10	0-10	
hence, the sample can be used for the work.					

The result of the materials tested meets the standards and hence can be used for the work.

Page No. 1/1,

[Signature]



NC/QC/YPD/2020-21/P5-C2

Date: 14-06-2021

1. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).

{Project*: Package1 a Improvements to playgrounds at Thanisandra Village at Ward No 06
b Improvements to Suvarana Mahotsava Play Ground on Vidyananyapura Main road at
Ward No 09 c Improvements to playgrounds at Ward No 11 Kuvempunagarad
Developmental Works to Play ground stadium in Ward No 05 Jakkur e Developmental
works to Play ground Stadium Sahakaranagara Ward No 08 Kodigehalli.}

Ref.: Material testing/PMC/18-19,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. Arun Kumar B.

PHYSICAL TESTS ON CEMENT

Grade * : 53,
Type * : O.P.C

TABLE 1.1:

SL No	Name of Test	Test Results	Requirements as per IS 8112-1989
1	Initial setting time	167 min	Shall not be less than 30 min
2	Final setting time	251 min	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	1.96 %	Not to exceed 10.0%
4	Soundness test (by Le-Chatelier's method)	1.84 mm	Shall not be more than 10 mm
5	Compressive strength b) 3 days (average of three results)	28.76 N/Sq mm	Shall not be less than 27 N/Sqmm

The result of the materials tested meets the standards and hence can be used for the work.

Page No. 1/1,

[Signature]



NC/QC/YPD/2020-21/P5-PCC2

Date: 14-06-2021

1. TESTING OF COARSE AND FINE AGGREGATES:

Sub: Testing of Coarse and Fine aggregates to be used for bed concrete.

[Project*: Package] a Improvements to playgrounds at Thanisandra Village at Ward No 06
b Improvements to Suvarana Mahotsava Play Ground on Vidyananyapura Main road at Ward No 09 c Improvements to playgrounds at Ward No 11 Kuvempunagarad
Developmental Works to Play ground stadium in Ward No 05 Jakkur e Developmental works to Play ground Stadium Sahakaranagara Ward No 08 Kodigehalli.]

Ref.: Material testing/PMC/18-19.

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. Arun Kumar B.

1. COARSE AGGRGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2007)	
		Single size	Graded
	40 mm Sample	85-100	90-100
40mm	100.00	0-20	30-70
20mm	64.10	0-5	10-35
10mm	21.75	-----	0-5
4.75mm	4.30		

2. FINE AGGREGATES TABLE - SIEVE ANALYSIS:

2. FINE AGGREGATES					TABLE - SIEVE ANALYSIS		Remarks
IS Sieve Size, mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002)					
		Percentage Passing					
		Zone-I	Zone-II	Zone -III	The Sample Conforms to Grading Zone-II		
04.75	97.10	90-100	90-100	90-100			
02.36	80.75	60-95	75-100	85-100			
01.18	68.20	30-70	55-90	75-100			
600.mic	42.80	15-34	35-59	60-79			
300.mic	14.85	5-20	8-30	12-40			
150 mic	8.05	0-10	0-10	0-10			
The sample conforms to the standards and hence can be used for the work.							

The result of the materials tested meets the standards and hence can be used for the work.

Page No. 1/1,



[Signature]

NC/QC/YPD/2020-21/P5-C3

Date: 24-06-2021

I. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).

{Project*: Package I a Improvements to playgrounds at Thanisandra Village at Ward No 06
b Improvements to Suvarana Mahotsava Play Ground on Vidyananyapura Main road at
Ward No 09 c Improvements to playgrounds at Ward No 11 Kuvempunagar
Developmental Works to Play ground stadium in Ward No 05 Jakkur e Developmental
works to Play ground Stadium Sahakaranagara Ward No 08 Kodigehalli.}

Ref: Material testing/PMC/18-19.

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. Arun Kumar B.

PHYSICAL TESTS ON CEMENT

Grade * : 53,
Type * : O.P.C

TABLE I.1:

SL No	Name of Test	Test Results	Requirements as per IS 8112-1989
1	Initial setting time	167 min	Shall not be less than 30 min
2	Final setting time	274 min	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	1.84 %	Not to exceed 10.0%
4	Soundness test (by Le-Chatelier's method)	2.11 mm	Shall not be more than 10 mm
5	Compressive strength c) 3 days (average of three results)	29.13 N/Sq mm	Shall not be less than 27 N/Sqmm

The result of the materials tested meets the standards and hence can be used for the work.

Page No. 1/1,

[Signature]



NC/QC/YPD/2020-21/P5-PCC3

Date: 25-06-2021

1. TESTING OF COARSE AND FINE AGGREGATES:

Sub: Testing of Coarse and Fine aggregates to be used for bed concrete.

{Project*: Package1 a Improvements to playgrounds at Thanisandra Village at Ward No 06
b Improvements to Suvarana Mahotsava Play Ground on Vidyaranyapura Main road at
Ward No 09 c Improvements to playgrounds at Ward No 11 Kuvempunagarad
Developmental Works to Play ground stadium in Ward No 05 Jakkur e Developmental
works to Play ground Stadium Sahakaranagara Ward No 08 Kodigehalli. }

Ref.: Material testing/PMC/18-19,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. Arun Kumar B.

1. COARSE AGGRGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2007)	
		Single size	Graded
	40 mm Sample	85-100	90 - 100
40mm	100.00	0 -20	30- 70
20mm	61.30	0 -5	10- 35
10mm	24.05	-----	0- 5
4.75mm	3.75		

2. FINE AGGREGATES TABLE - SIEVE ANALYSIS

2. FINE AGGREGATES TABLE - SIEVE ANALYSIS:					Remarks
IS Sieve Size, mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002)			
		Percentage Passing			
		Zone-I	Zone-II	Zone -III	The Sample Conforms to Grading Zone-II
04.75	98.10	90-100	90-100	90-100	
02.36	85.65	60-95	75-100	85-100	
01.18	77.40	30-70	55-90	75-100	
600 mic	39.90	15-34	35-59	60-79	
300 mic	16.25	5-20	8-30	12-40	
150 mic	7.50	0-10	0-10	0-10	

The result of the materials tested meets the standards and hence can be used for the work.

Page No. 1/1,

[Signature]



NC/QC/YPD/2020-21/P5-CE1

Date: 21-06-2021

1. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).

{Project*: Package1 a Improvements to playgrounds at Thanisandra Village at Ward No 06
b Improvements to Suvarana Mahotsava Play Ground on Vidyaranyapura Main road at
Ward No 09 c Improvements to playgrounds at Ward No 11 Kuvempunagarad
Developmental Works to Play ground stadium in Ward No 05 Jakkur e Developmental
works to Play ground Stadium Sahakaranagara Ward No 08 Kodigehalli. }

Ref.: Material testing/PMC/18-19,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. Arun Kumar B.

PHYSICAL TESTS ON CEMENT

Grade * : 53,
Type * : O.P.C

TABLE 1.1:

SL No	Name of Test	Test Results	Requirements as per IS 8112-1989
1	Initial setting time	169 min	Shall not be less than 30 min
2	Final setting time	284 min	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	2.02 %	Not to exceed 10.0%
4	Soundness test(by Le-Chatelier's method)	1.84 mm	Shall not be more than 10 mm
5	Compressive strength d) 3 days (average of three results)	28.49 N/Sq mm	Shall not be less than 27 N/Sqmm

The result of the materials tested meets the standards and hence can be used for the work.

Page No. 1/1,

[Signature]



NC/QC/YPD/2020-21/P5-FA1

Date: 21-06-2021

1. TESTING OF FINE AGGREGATES

Sub: Testing of Fine Aggregates.

{Project*: Package I a Improvements to playgrounds at Thanisandra Village at Ward No 06
b Improvements to Suvarana Mahotsava Play Ground on Vidyananyapura Main road at
Ward No 09 c Improvements to playgrounds at Ward No 11 Kuvempunagarad
Developmental Works to Play ground stadium in Ward No 05 Jakkur e Developmental
works to Play ground Stadium Sahakaranagara Ward No 08 Kodigehalli.}

Ref: Material testing/PMC/18-19,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. Arun Kumar B.

TABLE - 1.1: SIEVE ANALYSIS

TABLE - 1.1: SIEVE ANALYSIS					Remarks
IS Sieve Size,mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002)			
		Percentage Passing			
		Zone-I	Zone-II	Zone -II	The Sample Conforms to Grading Zone-II
04.75	97.35	90-100	90-100	90-100	
02.36	85.10	60-95	75-100	85-100	
01.18	79.60	30-70	55-90	75-100	
600. mic	41.40	15-34	35-59	60-79	
300. mic	26.85	5-20	8-30	12-40	
150. mic	7.05	0-10	0-10	0-10	

TABLE 1.2:

Sl No	Test Conducted	Sample	Results	Requirements as Per IS. Specification IS :383-1970 (Reaffirmed 2002)
1	Bulking of Sand	001	16.81 %	-----
2	Silt Content	----	0.61%	Not more than 8%
3	Specific Gravity	----	2.60	-----

The result of the materials tested meets the standards and hence can be used for the work

Page No. 1/1,



NC/QC/YPD/2020-21/P5-CA1

Date: 21-06-2021

1. TESTING OF COARSE AGGREGATES (20 mm):

Sub: Testing of Construction Materials.

{Project*: Package1 a Improvements to playgrounds at Thanisandra Village at Ward No 06
b Improvements to Suvarana Mahotsava Play Ground on Vidyaranyapura Main road at
Ward No 09 c Improvements to playgrounds at Ward No 11 Kuvempunagarad
Developmental Works to Play ground stadium in Ward No 05 Jakkur e Developmental
works to Play ground Stadium Sahakaranagara Ward No 08 Kodigehalli. }

Ref.: Material testing/PMC/18-19,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. Arun Kumar B.

Table - 1.1: SIEVE ANALYSIS :

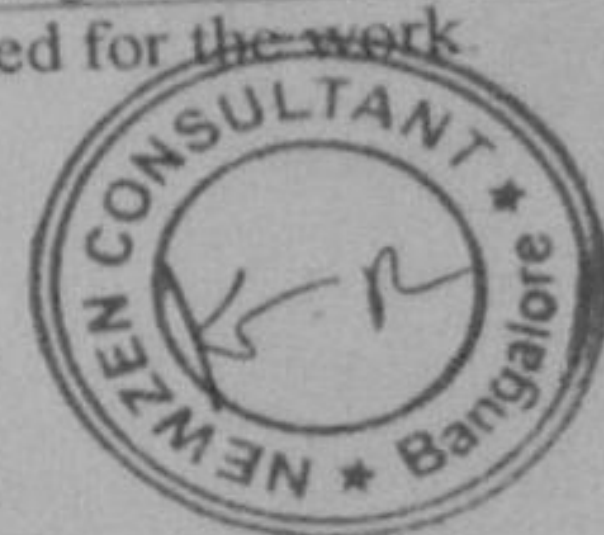
IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2002)	
		% Passing	
	20 mm Sample	Single size	Graded
40 mm	100.00	100.00	100.00
20 mm	98.20	85-100	90 - 100
10 mm	44.95	0 - 20	25 - 55
4.75 mm	4.30	0 - 5	0 - 10

TABLE 1.2 :

SL No	Test conducted	Results	Requirements as per IS 383-1970 & Tests Conforms to IS 2386(Part I to IV) - 1963 (Reaffirmed on 2002)
1.	Flakiness Index	23.41 %	Not to exceed 25 %
2.	Crushing value	26.18%	Not to exceed 45 % for concrete other than for wearing surfaces and 30% for concrete for wearing surfaces

The result of the materials tested meets the standards and hence can be used for the work

Page No. 1/1



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NC/QC/YPD/2020-21/P5-SSM1

Date: 24-06-2021

1. TESTING OF STONE SAMPLE :

Sub: Testing of Size stone.

{Project*: Package I a Improvements to playgrounds at Thanisandra Village at Ward No 06
b Improvements to Suvarana Mahotsava Play Ground on Vidyaranyapura Main road at
Ward No 09 c Improvements to playgrounds at Ward No 11 Kuvempunagarad
Developmental Works to Play ground stadium in Ward No 05 Jakkur e Developmental
works to Play ground Stadium Sahakaranagara Ward No 08 Kodigehalli. }

Ref.: Material testing/PMC/18-19,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. Arun Kumar B.

Technical Reference: IS 1121(Part I) -1974 (R.A on 1998)

Table 1.1 :

SL No	Details of Tests	Observed Value	Normal Values
01	Compressive Strength	1349.00 Kg/ Sqcm	Not less than 1000.00 Kg/Sqcm
02	Water absorption,%	0.42 %	Not more than 2.0 %

The result of the materials tested meets the standards and hence can be used for the work.

Page No. 1/1,

[Signature]



Date: 12-07-2021

NC/QC/YPD/2020-21/P5-MP1

1. TEST REPORT ON M.S PIPE (38 mm dia) :

Sub: Tests on Chain Link Fencing Materials.

{Project*: Package1 a Improvements to playgrounds at Thanisandra Village at Ward No 06
b Improvements to Suvarana Mahotsava Play Ground on Vidyaranyapura Main road at
Ward No 09 c Improvements to playgrounds at Ward No 11 Kuvempunagarad
Developmental Works to Play ground stadium in Ward No 05 Jakkur e Developmental
works to Play ground Stadium Sahakaranagara Ward No 08 Kodigehalli }

Ref.: Material testing/PMC/18-19,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. Arun Kumar B.

PHYSICAL TEST

TABLE - 1

Sl No	Details of Tests	Test Results for M.S Pipes	Remarks
		38 mm dia-medium.	
1	Bend or Flattening Test	OK	As per IS 2329-1985 (No fracture)
2	Percentage of elongation, %	26.90	As per IS 1894-1972 (Min. 20.0%)
3	Ultimate Tensile Strength, N/mm ²	371.0 N/Sq mm	As per IS 1894-1972 (Min. 320.0 N/Sq mm)

The result of the materials tested meets the standards and hence can be used for the work.

Page No. 1/1

[Signature]



Date: 12-07-2021

NC/QC/YPD/2020-21/P5-CLF1

1. TEST REPORT ON CHAIN LINK FENCING WIRE:

Sub: Tests on Chain Link Fencing Materials.

{Project*: Package1 a Improvements to playgrounds at Thanisandra Village at Ward No 06
b Improvements to Suvarana Mahotsava Play Ground on Vidyaranyapura Main road at
Ward No 09 c Improvements to playgrounds at Ward No 11 Kuvempunagarad
Developmental Works to Play ground stadium in Ward No 05 Jakkur e Developmental
works to Play ground Stadium Sahakaranagara Ward No 08 Kodigehalli.}

Ref.: Material testing/PMC/18-19,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. Arun Kumar B.

TABLE - 1

Sl No	Details of Tests	Test Results	Remarks / Test method conforms to
1	Ultimate Tensile Strength	532 N/ sqmm	As per IS:1608-1995 400-550N/ sqmm
2	Wrapping test	No breaking or splitting	As per IS:1755-1983 & IS: 2721-2003 Sample shall not break or split
3	Bend/ Rebend Test	No breaking or splitting	As per IS: 2721-2003 Sample shall not break or split

The result of the materials tested meets the standards and hence can be used for the work.

Page No. 1/1

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Date: 12-07-2021

NC/QC/YPD/2020-21/P5-SS1

I. TEST REPORT ON STRUCTURAL STEEL :

Sub: Testing of Structural Steel Members-M.S Angle.

{Project*: Package1 a Improvements to playgrounds at Thanisandra Village at Ward No 06
b Improvements to Suvarana Mahotsava Play Ground on Vidyaranyapura Main road at
Ward No 09 c Improvements to playgrounds at Ward No 11 Kuvempunagar
Developmental Works to Play ground stadium in Ward No 05 Jakkur e Developmental
works to Play ground Stadium Sahakaranagara Ward No 08 Kodigehalli.}

Ref.: Material testing/PMC/18-19,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. Arun Kumar B.

TABLE - 1

Sl No	Details of Tests	Specimen Size ISA-65X 65X 6 mm of 1.0 m length	
		Test Results	Min req as per IS:2062-1999 & Steel Table
1	Proof stress/Yield stress, f_y N/mm ²	291 N/Sq mm	250 N/Sq mm
2	Bend/ Rebend Test	Withstood	Sample should with stand
3	Percentage of elongation, %	27.80	23.0
4	Ultimate Tensile Strength, N/mm ²	432 N/Sq mm	410 N/Sq mm

The result of the materials tested meets the standards and hence can be used for the work.

Page No. 1/1

[Signature]



NC/QC/YPD/2020-21/P5-CB1

Date: 22-07-2021

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07days Compressive Strength).
{Project*: Package1 a Improvements to playgrounds at Thanisandra Village at Ward No 06
b Improvements to Suvarana Mahotsava Play Ground on Vidyaranyapura Main road at
Ward No 09 c Improvements to playgrounds at Ward No 11 Kuvempunagarad
Developmental Works to Play ground stadium in Ward No 05 Jakkur e Developmental
works to Play ground Stadium Sahakaranagara Ward No 08 Kodigehalli }

Ref.: Material testing/PMC/18-19,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: Sri. Arun Kumar B.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE
CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm
Grade of Concrete* : M₁₅

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm ²	Maximum Load in K.N	Compressive Strength (N/ mm ²)	Avg. Value
1	001	15-07-21	22-07-21	08	22500	305	13.56	13.33
	002	"	"	"	"	295	13.11	
	003	"	"	"	"	300	13.33	

The result of the materials tested meets the standards and hence can be used for the work.

Page No. 1/1,

[Signature]



NC/QC/YPD/2020-21/P5-CB1A

Date: 12-08-2021

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 28days Compressive Strength).

{Project*: Package1 a Improvements to playgrounds at Thanisandra Village at Ward No 06
b Improvements to Suvarana Mahotsava Play Ground on Vidyaranyapura Main road at
Ward No 09 c Improvements to playgrounds at Ward No 11 Kuvempunagarad
Developmental Works to Play ground stadium in Ward No 05 Jakkur e Developmental
works to Play ground Stadium Sahakaranagara Ward No 08 Kodigehalli. }

Ref.: Material testing/PMC/18-19,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. Arun Kumar B.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M₁₅

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm ²	Maximum Load in K.N	Compressive Strength (N/ mm ²)	Avg. Value
1	001	15-07-21	12-08-21	28	22500	410	18.22	18.07
	002	"	"	"	"	395	17.56	
	003	"	"	"	"	415	18.44	

The result of the materials tested meets the standards and hence can be used for the work.

Page No. 1/1,

K. R.





NC/QC/YPD/2020-21/P5-K1

Date: 05-08-2021

TEST REPORT

Sub: Testing of Pre-cast Material-Kerb Stones.

{Project*: Package1 a Improvements to playgrounds at Thanisandra Village at Ward No 06
b Improvements to Suvarana Mahotsava Play Ground on Vidyaranyapura Main road at
Ward No 09 c Improvements to playgrounds at Ward No 11 Kuvempunagarad
Developmental Works to Play ground stadium in Ward No 05 Jakkur e Developmental
works to Play ground Stadium Sahakaranagara Ward No 08 Kodigehalli.}

Ref.: Material testing/PMC/18-19,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. Arun Kumar B.

1. PHYSICAL TESTS ON KERB STONES :

Sl No.	Identification	Flexural strength, fcr in N/sqmm	Characteristic Compressive Strength, fck in N/sqmm	Avg. Characteristic Compressive Strength fck in N/sqmm	Remarks
1	001	3.35	22.95	22.55	As per Cl. 6.2.2 of IS 456-2000, fcr=0.7√ fck
2	002	3.30	22.20		
3	003	3.33	22.60		

2. WATER ABSORPTION TEST

Sl No	Identification	Water absorption %	Average value %
1	001	4.41	4.63
2	002	4.64	
3	003	4.84	

The result of the materials tested meets the standards and hence can be used for the work.

Page No. 1/1

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NC/QC/YPD/2020-21/P5-K2

Date: 07-08-2021

TEST REPORT

Sub: Testing of Pre-cast Material-Kerb Stones.

{Project*: Package1 a Improvements to playgrounds at Thanisandra Village at Ward No 06
b Improvements to Suvarana Mahotsava Play Ground on Vidyaranyapura Main road at Ward No 09 c Improvements to playgrounds at Ward No 11 Kuvempunagarad Developmental Works to Play ground stadium in Ward No 05 Jakkur e Developmental works to Play ground Stadium Sahakaranagara Ward No 08 Kodigehalli. }

Ref.: Material testing/PMC/18-19,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. Arun Kumar B.

1. PHYSICAL TESTS ON KERB STONES :

Sl No.	Identification	Flexural strength, fcr in N/sqmm	Characteristic Compressive Strength, fck in N/sqmm	Avg. Characteristic Compressive Strength fck in N/sqmm	Remarks
1	001	3.30	22.10	22.18	As per Cl. 6.2.2 of IS 456-2000, fcr=0.7√ fck
2	002	3.32	22.50		
3	003	3.28	21.95		

2. WATER ABSORPTION TEST

Sl No	Identification	Water absorption %	Average value %
1	001	4.90	4.82
2	002	4.74	
3	003	4.83	

The result of the materials tested meets the standards and hence can be used for the work.

Page No. 1/1

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NC/QC/YPD/2020-21/P5-K3

Date: 10-08-2021

TEST REPORT

Sub: Testing of Pre-cast Material-Kerb Stones.

{Project*: Package1 a Improvements to playgrounds at Thanisandra Village at Ward No 06
b Improvements to Suvarana Mahotsava Play Ground on Vidyaranyapura Main road at
Ward No 09 c Improvements to playgrounds at Ward No 11 Kuvempunagar
Developmental Works to Play ground stadium in Ward No 05 Jakkur e Developmental
works to Play ground Stadium Sahakaranagara Ward No 08 Kodigehalli.}

Ref.: Material testing/PMC/18-19,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. Arun Kumar B.

1. PHYSICAL TESTS ON KERB STONES:

Sl No.	Identification	Flexural strength, fcr in N/sqmm	Characteristic Compressive Strength, fck in N/sqmm	Avg. Characteristic Compressive Strength fck in N/sqmm	Remarks
1	001	3.37	23.15	22.92	As per Cl. 6.2.2 of IS 456-2000, fcr=0.7√ fck
2	002	3.34	22.70		
3	003	3.35	22.90		

2. WATER ABSORPTION TEST

Sl No	Identification	Water absorption %	Average value %
1	001	4.71	4.84
2	002	4.96	
3	003	4.84	

The result of the materials tested meets the standards and hence can be used for the work.

Page No. 1/1

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NC/QC/YPD/2020-21/P5-K4

Date: 16-08-2021

TEST REPORT

Sub: Testing of Pre-cast Material-Kerb Stones.

{Project*: Package1 a Improvements to playgrounds at Thanisandra Village at Ward No 06
b Improvements to Suvarana Mahotsava Play Ground on Vidyaranyapura Main road at Ward No 09 c Improvements to playgrounds at Ward No 11 Kuvempunagarad Developmental Works to Play ground stadium in Ward No 05 Jakkur e Developmental works to Play ground Stadium Sahakaranagara Ward No 08 Kodigehalli. }

Ref.: Material testing/PMC/18-19,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. Arun Kumar B.

1. PHYSICAL TESTS ON KERB STONES:

Sl No.	Identification	Flexural strength, fcr in N/sqmm	Characteristic Compressive Strength, fck in N/sqmm	Avg. Characteristic Compressive Strength fck in N/sqmm	Remarks
1	001	3.39	23.45	23.15	As per Cl. 6.2.2 of IS 456-2000, fcr=0.7√ fck
2	002	3.36	23.10		
3	003	3.35	22.90		

2. WATER ABSORPTION TEST

Sl No	Identification	Water absorption %	Average value %
1	001	4.15	4.15
2	002	4.30	
3	003	4.00	

The result of the materials tested meets the standards and hence can be used for the work.

Page No. 1/1

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NC/QC/YPD/2020-21/P5 -PB1

Date: 11-08-2021

TEST REPORT

Sub: Testing of Pre-cast Paver Blocks of thickness 60mm.
{Project*: Package1 a Improvements to playgrounds at Thanisandra Village at Ward No 06
b Improvements to Suvarana Mahotsava Play Ground on Vidyaranyapura Main road at
Ward No 09 c Improvements to playgrounds at Ward No 11 Kuvempunagarad
Developmental Works to Play ground stadium in Ward No 05 Jakkur e Developmental
works to Play ground Stadium Sahakaranagara Ward No 08 Kodigehalli. }

Ref.: Material testing/PMC/18-19,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. Arun Kumar B.

Technical Reference*: IS 15658-2006.

PHYSICAL TESTS ON PRECAST PAVER BLOCKS.

I.COMPRESSIVE STRENGTH:

Sl No	Identification	Compressive Strength, N/mm ²	Average Compressive Strength, N/mm ²
1	001	41.95	41.98
2	002	42.10	
3	003	41.60	
4	004	42.30	

The result of the materials tested meets the standards and hence can be used for the work.

Page No.1/1



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NC/QC/YPD/2020-21/P5-PB2

Date: 13-08-2021

TEST REPORT

Sub: Testing of Pre-cast Paver Blocks of thickness 60mm.

{Project*: Package1 a Improvements to playgrounds at Thanisandra Village at Ward No 06
b Improvements to Suvarana Mahotsava Play Ground on Vidyaranyapura Main road at
Ward No 09 c Improvements to playgrounds at Ward No 11 Kuvempunagarad
Developmental Works to Play ground stadium in Ward No 05 Jakkur e Developmental
works to Play ground Stadium Sahakaranagara Ward No 08 Kodigehalli. }

Ref.: Material testing/PMC/18-19,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. Arun Kumar B.

Technical Reference*: IS 15658-2006.

PHYSICAL TESTS ON PRECAST PAVER BLOCKS.

1.COMPRESSIVE STRENGTH:

Sl No	Identification	Compressive Strength, N/mm ²	Average Compressive Strength, N/mm ²
1	001	42.30	41.93
2	002	41.60	
3	003	41.85	
4	004	41.95	

The result of the materials tested meets the standards and hence can be used for the work.

Page No.1/1



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30

NC/QC/YPD/2020-21/P5-PB3

Date: 18-08-2021

TEST REPORT

Sub: Testing of Pre-cast Paver Blocks of thickness 60mm.

{Project*: Package1 a Improvements to playgrounds at Thanisandra Village at Ward No 06
b Improvements to Suvarana Mahotsava Play Ground on Vidyaranyapura Main road at
Ward No 09 c Improvements to playgrounds at Ward No 11 Kuvempunagarad
Developmental Works to Play ground stadium in Ward No 05 Jakkur e Developmental
works to Play ground Stadium Sahakaranagara Ward No 08 Kodigehalli. }

Ref.: Material testing/PMC/18-19,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. Arun Kumar B.

Technical Reference*: IS 15658-2006.

PHYSICAL TESTS ON PRECAST PAVER BLOCKS.

1.COMPRESSIVE STRENGTH:

Sl No	Identification	Compressive Strength, N/mm ²	Average Compressive Strength, N/mm ²
1	001	41.80	41.86
2	002	41.65	
3	003	42.10	
4	004	41.90	

The result of the materials tested meets the standards and hence can be used for the work.

Page No.1/1



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NC/QC/YPD/2020-21/P5-CB2

Date: 05-08-2021

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07 days Compressive Strength).

{Project*: Package I a Improvements to playgrounds at Thanisandra Village at Ward No 06
b Improvements to Suvarana Mahotsava Play Ground on Vidyananyapura Main road at
Ward No 09 c Improvements to playgrounds at Ward No 11 Kuvempunagar
Developmental Works to Play ground stadium in Ward No 05 Jakkur e Developmental
works to Play ground Stadium Sahakaranagara Ward No 08 Kodigehalli }

Ref.: Material testing/PMC/18-19,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. Arun Kumar B.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm
Grade of Concrete* : M₂₀

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm ²	Maximum Load in K.N	Compressive Strength (N/ mm ²)	Avg. Value
1	001	29-07-21	05-08-21	07	22500	350	15.56	16.07
	002	"	"	"	"	370	16.44	
	003	"	"	"	"	365	16.22	

The result of the materials tested meets the standards and hence can be used for the work.

Page No. 1/1,



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NOCC/YPD/2020-21/P5-CB2A

Date: 26-08-2021

1. TEST REPORT ON CEMENT CONCRETE CUBES

Sub: Testing of Concrete Cubes (for 28days Compressive Strength)

Project*: Package1 a Improvements to playgrounds at Thanisandra Village at Ward No 06
 b Improvements to Suvarana Mahotsava Play Ground on Vidyananyapura Main road at Ward No 09 c Improvements to playgrounds at Ward No 11 Kuvempunagarad
 Developmental Works to Play ground stadium in Ward No 05 Jakkur e Developmental works to Play ground Stadium Sahakaranagara Ward No 08 Kodigehalli.)

Ref: Material testing/PMC/18-19,

Report Required for: Assistant Executive Engineer,
 Yelahanka Project Division,
 BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. Arun Kumar B.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE**CUBE SPECIMENS**

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M₂₀**TABLE 1.1:**

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm ²	Maximum Load in K.N	Compressive Strength (N/ mm ²)	Avg. Value
1	001	29-07-21	26-08-21	28	22500	510	22.67	22.37
	002	"	"	"	"	505	22.44	
	003	"	"	"	"	495	22.00	

The result of the materials tested meets the standards and hence can be used for the work.

Page No. 1/1,



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 30